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BL
Cont'd

Sub
E1

a second oriented strand face having a layer of wood flakes mixed with a thermoset resin binder; and

a core provided between said first oriented strand face and said second oriented strand face, said core comprising voids having boundaries that are essentially orthogonal to said plane defined by said first oriented strand face, said voids extending between said first and second oriented strand faces and said core being compression-resistant in a direction essentially orthogonal to said plane defined by said first oriented strand face.

Claim 2 A structure according to claim 37, wherein said core further comprises inorganic filler in the amount of about 10% to 80% by weight.

Claim 3 A structure according to claim 2, wherein said inorganic filler is one or more of clay, calcium carbonate, and titanium dioxide.

Claim 4 A structure according to claim 37, wherein said perforated mat is perforated such that it comprises between 0% and 75% voids by volume and wherein said core further comprises resin binder in an amount of less than 10% by weight.

Claim 5 A structure according to claim 37, wherein said perforated mat is perforated such that it comprises between 0% and 50% voids by volume and wherein said core further comprises resin binder in an amount of less than 5% by weight.

Claim 6 A structure according to claim 37, wherein said perforated mat consists essentially of paper mill sludge.

Claim 10 A structure according to claim 4, wherein said perforated mat comprises one or more of paper mill sludge, recycled paper, vulcanized rubber, thermoset plastics, and volcanic rock.

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B2 Sub
C1

Claim 37 A structure according to claim 1, wherein said compression-resistant core comprises a perforated mat that is oriented such that the perforation boundaries are essentially orthogonal to the plane defined by said first oriented strand face.

B2 Sub
C1

Claim 39 A structure according to claim 1, wherein said compression-resistant core is able to resist at least about 12Mpa of pressure at a temperature of at least about 215°C for at least about 200 seconds in a direction essentially orthogonal to said plane defined by said first oriented strand face.
